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(54) Title: COMPUTER SYSTEMS AND METHODS FOR ASSOCIATING GENES WITH TRAITS USING CROSS SPECIES DATA

(57) Abstract: A method for confirming the association of a query QTL or a query gene in the genome of a second species with a clinical trait T exhibited by the second species. A first QTL or a first gene in a first species that is linked to a trait T' is found. The trait T' is indicative of trait T. A region of the genome of the first species that comprises the first QTL or the first gene is mapped to a particular region of the genome of the second species. A query QTL or a query gene in the second species that is potentially associated with the trait T is found. The potential association of the query QTL or the query gene with the clinical trait T is confirmed when the query QTL or the query gene is in the particular region of the genome of the second species.





International application No.

PCT/US03/41613

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International application No.

PCT/US03/41613

| Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet) |             |  |  |  |  |  |
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| This  | interna     | tional report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:  |  |  |  |  |
| 1.  |             | Claim Nos.: because they relate to subject matter not required to be searched by this Authority, namely:   |  |  |  |  |
| 2.  | $\boxtimes$ | Claim Nos.: 87-125 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically: Please See Continuation Sheet   |  |  |  |  |
| 3.  |             | Claim Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).  |  |  |  |  |
| Box 1   | II Ob       | servations where unity of invention is lacking (Continuation of Item 2 of first sheet)   |  |  |  |  |
| This I  | Internati   | onal Searching Authority found multiple inventions in this international application, as follows:  |  |  |  |  |
| 1.  <br>2.  <br>3. [  |             | As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.: |  |  |  |  |
| 4. [  | k on Pr     | No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.   |  |  |  |  |



Form PCT/ISA/210 (second sheet) (July 1998)



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